



PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

MICHAEL SCOTT
Acting Director

April 13, 2016

Mr. Hannu Kemppinen, P.G.
Joyce Engineering
9731-F Southern Pine Blvd.
Charlotte, NC 28273

Re: Permit Renewal (9704-MSWLF-1993)
Wilkes County MSW Landfill - Wilkes County NC
Hydrogeology Review **DIN 25946**

Dear Mr. Kemppinen,

I have reviewed the permit renewal monitoring documents (DIN 25945) submitted for the Wilkes County Landfill facility in regards to hydrogeological monitoring considerations (per 15A NCAC 13B .1600), specifically as contained in the *Water Quality Monitoring Plan* (WQ Plan) and *Landfill Gas Monitoring Plan* (LFG Plan). The monitoring plans were received by the Solid Waste Section (Section) via email on February 23, 2016 from Joyce Engineering on behalf of Wilkes County. The permit renewal application (DIN 25438), which did not contain the monitoring plans, was submitted separately on January 7, 2016 to Mr. Allen Gaither for review. According to the permit application submittal, Wilkes County is requesting an amendment to the operations permit for continuing operations through the next five-year permitting cycle.

The most recent Design Hydrogeologic Report for a landfill expansion was approved in 2005 and applies to the current active Phase IV vertical expansion. Since the current request is for continued operation of approved activities, no additional design geologic or hydrogeologic investigations (per 15A NCAC 13B .1623) are warranted.

Water Quality and Landfill Gas Monitoring Plans

The Wilkes County MSWLF facility is currently operating under the WQ monitoring plan (DIN 15121 and LFG monitoring plan (DIN 15166) approved by the Section in 2011. The approved documents include the current groundwater and landfill gas monitoring network as it exists today: eleven (11) monitoring wells and four (4) LFG monitoring wells. Additional LFG wells will be installed near the property boundaries to the northeast and north upon completion of onsite borrow activities and a future Phase 5 expansion, respectively. Two buildings onsite (scalehouse and maintenance garage/office) are also monitoring for LFG. Surface water monitoring is not conducted. The monitoring plans are designed to detect early release of constituents to the uppermost aquifer and dangerous levels of explosive gases. Water sample collection is performed semiannually and reported to the Section. LFG measurements are taken quarterly and reported if exceedances are found.

In the current permit renewal application submitted by Joyce Engineering, the facility Water Quality Monitoring Plan and the LFG Monitoring Plan remain basically unchanged with only minor updates. The LFG Monitoring Plan as presented is accepted and approved. Prior to final approval of the WQ Plan, the following revision is requested:

- WQ Plan – Appendix 4 – Environmental Guidelines & Memos: Add the most recent guidance (November 5, 2014) for submittal of environmental data (attached). The memo can also be downloaded from our website: [SWS Electronic Data Submittal Memo - Nov2014](#)

Please submit the revised WQ Plan to me once the change has been completed. An electronic pdf copy will be fine. If you have any questions concerning these comments, please do not hesitate to contact me via email perry.sugg@ncdenr.gov or phone (919) 707-8258.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Perry Sugg', with a stylized flourish at the end.

Perry Sugg, PG
Permitting Hydrogeologist
Solid Waste Section

Cc: Kent Brandon – Wilkes County Solid Waste Director
Ed Mussler, P.E. – SWS, Permitting Branch Head
Allen Gaither – SWS, Permitting Engineer